X.X.X.X.X. Hierarchy Placement Undetermined: Park specials & provisional types

IV.B.2.N.? ARTEMISIA FRIGIDA DWARF SHRUBLAND ALLIANCE?

Fringed Sagewort Dwarf-shrubland Alliance

ARTEMISIA FRIGIDA / BOUTELOUA GRACILIS DWARF-SHRUBLAND

Fringed Sagewort / Blue Grama Dwarf-shrubland [Park Special?]

ELEMENT CONCEPT

GLOBAL SUMMARY: Not applicable

ENVIRONMENTAL DESCRIPTION

USFWS Wetland System: Upland

Florissant Fossil Beds NM Environment: Within the monument, this dwarf-shrubland is located on deeper soils that are typically deposited in drainages, swales (interfluves), and along lower hillslopes. The soil must be of a consistency (silty-clay and clay) that will support burrowing activity in terms of both depth and cohesiveness. This type is found at the lower and mid-elevations (8350–8650 feet) predominantly, within the monument. The slopes ranged from 2–7% and were considered moderately well-drained. *Artemisia frigida* is a common, but rarely dominant, component of all herbaceous, shrub, and woodland communities that occur on upland sites within the monument. Adjacent to the monument, this dwarf-shrubland occupies prairie dog towns but also heavily grazed pastures in the vicinity of livestock watering ponds.

Global Environment: Not applicable

VEGETATION DESCRIPTION

Florissant Fossil Beds NM Vegetation: This dwarf-shrubland becomes established on sites disturbed by prairie dogs. *Artemisia frigida* is an increaser under livestock grazing regimes and is evidently unpalatable or less palatable to prairie dogs, as well. The age of the colony determines to what extent *Artemisia frigida* dominates the site, and the following description covers sites that have been used by prairie dogs for several years. Prairie dog colonies that are densely occupied typically have vegetative cover values less than 40%. The foliar cover for *Artemisia frigida* ranges from 20–40% and other dwarf-shrubs, i.e., *Ericameria parryi, Chrysothamnus viscidiflorus, Gutierrezia sarothrae, Rosa acicularis*, and a species of *Solidago,* contribute from 5–20% foliar cover on some sites. The most abundant graminoid is *Bouteloua gracilis*, which is an increaser under light to moderate grazing regimes. Blue grama contributes approximately 5–10% foliar cover on sites that are moderate to heavily-grazed. Other graminoids present on established prairie dog towns include *Schedonnardus paniculatus, Poa fendleriana*, and *Nassella viridula*. They rarely contribute greater than 5% foliar cover, unless it is a less densely populated colony, then the cover values increase for these species. Forbs generally contribute less than 5% to the foliar cover; those species commonly associated with these disturbed sites include *Argentina anserina, Melilotus officinalis*, *Antennaria* sp., and *Achillea millefolium*. Ground cover is typically 60–90% bare soil and small gravel, with the remainder in herbaceous litter.

Prairie dog colonies supporting fringed sagewort disturbed vegetation show a high level of reflectance and appear as white or light areas on aerial photography, with a pattern of stippling where the hole density is moderate to high. It is likely that most colonies fall below the project minimum mapping unit (0.5 ha) in size; however, some very large colonies occur immediately adjacent to the northern monument boundary and long the South Platte River drainage outside the monument.

Global Vegetation: Not applicable

Global Dynamics: Not applicable

MOST ABUNDANT SPECIES

Florissant Fossil Beds NM

Stratum	Species
Dwarf-shrub	*Artemisia frigida*
Graminoid	*Bouteloua gracilis*
Forb	*Achillea millefolium, Antennaria* sp.

Global
Stratum **Species**

CHARACTERISTIC SPECIES

Florissant Fossil Beds NM

Stratum	**Species**
Dwarf-shrub	*Artemisia frigida, Chrysothamnus viscidiflorus*
Graminoid	*Bouteloua gracilis, Nassella viridula*
Forb	*Argentina anserine*

Global
Stratum **Species**

OTHER NOTEWORTHY SPECIES

Florissant Fossil Beds NM

Global
Stratum **Species**

GLOBAL SIMILAR ASSOCIATIONS:

GLOBAL STATUS AND CLASSIFICATION COMMENTS

Global Conservation Status Rank:

Global Classification Comments:

ELEMENT DISTRIBUTION

Florissant Fossil Beds NM Range: *Artemisia frigida – Bouteloua gracilis* Dwarf-shrubland is the result of disturbance by prairie dogs, and it is distributed according to soils appropriate for burrowing activity. These soils are deeper and are located in stream valleys, drainages, swales, and gentle slopes within the monument. Dwarf-shrub density is typically related to the age (permanence) of the colony at a particular site. On private land adjacent to the southern monument boundary, an increase in this dwarf-shrubland resulted from livestock grazing pressure.

Global Range: Not applicable

Nations: US
States/Provinces: CO

ELEMENT SOURCES

Florissant Fossil Beds NM Inventory Notes: Plots 47, 79
Classification Confidence: 3 **Identifier:** To be determined.
REFERENCES: